DOCUMENT RESUME

ED 332 015 CE 057 964

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TITLE Enucleation Procedure Manual.
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PUB DATE 91
NOTE 41p.
PUB TYPE Guides - Classroom Use - Instructional Materials (For Learner) (051)

EDRS PRICE MF01/PC02 Plus Postage.
DESCRIPTORS *Allied Health Occupations Education; *Eyes; Instructional Materials; Medical Education; Medical Services; Nursing Education; *Tissue Donors
IDENTIFIERS *Mortuary Science

ABSTRACT

This manual provides information on the enucleation procedure (removal of the eyes for organ banks). An introductory section focuses on the anatomy of the eye and defines each of the parts. Diagrams of the eye are provided. A list of enucleation materials follows. Other sections present outlines of (1) a sterile procedure; (2) preparation for eye removal; (3) enucleation procedure, including a summary and step-by-step procedure with illustrations; (4) records to be completed; and (5) instructions for shipping. Other materials focus on obtaining consent from next of kin; procedure for preparation prior to arrival of enucleator; major problems encountered; embalming procedure; post-embalming restorative procedure; instrument care; and asking the question and extending the opportunity for tissue or organ donation. (YLB)

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ENUCLEATION PROCEDURE MANUAL

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ENUCLEATION PROCEDURE MANUAL

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CONTENTS

ANATOMY OF THE EYE 1

ENUCLEATION MATERIALS 9

STERILE PROCEDURE 10

PREPARATION FOR EYE REMOVAL 12

ENUCLEATION PROCEDURE 14

RECORDS TO BE COMPLETED 24

INSTRUCTIONS FOR SHIPPING 25

NEXT OF KIN 26

PROCEDURE FOR PREPARATION PRIOR TO ARRIVAL OF ENUCLEATOR 27

MAJOR PROBLEMS ENCOUNTERED 28

EMBALMING PROCEDURES 30

POST-EMBALMING RESTORATIVE PROCEDURE 31

INSTRUMENT CARE 32

ASK THE QUESTION AND EXTEND THE OPPORTUNITY 34

ASK THE QUESTION 36

ANATOMY OF THE EYE

Lids (Palpebra)

The eyelids are movable folds of tissue which serve to protect the eye. The skin of the lids is loose and elastic, permitting extreme swelling and subsequent return to normal shape and size.

Conjunctiva

The conjunctiva is a thin, transparent mucous membrane which lines the anterior sclera up to the edge of the cornea and the posterior surface of the lids. There are two divisions of the conjunctiva: palpebral and bulbar. The palpebral portion lines the lids and the bulbar conjunctiva is the anterior portion of Tenon's capsule, which is a connective tissue capsule surrounding the eyeball. Tenon's capsule and the conjunctiva are fused in a zone approximately 3mm wide around the edge of the cornea.

Cornea

The cornea is transparent, avascular tissue comparable in size and structure to the crystal in a small wrist watch. The junction of the cornea and the sclera is called the limbus. The cornea functions as a refracting and protective "window" membrane through which light rays pass en route to the retina. The average adult cornea is 1mm thick and 11.5mm in diameter. The five distinct layers of the cornea are: epithelium, Bowman's membrane, stroma, Descemet's membrane and the endothelium. The epithelium has 5 – 6 cell layers; the endothelium only one. The corneal stroma consists of lamellae and accounts for about 90% of the corneal thickness. Each lamellar fiber is

transparent, 1 micron thick and 15 microns wide, and as long as the diameter of the cornea.

The stromal lamellae are parallel to the corneal surface but do intertwine. The transparency of the cornea is due to its uniform structure, avascularity, and deturgescene. Deturgescence, a physiologic variable related to transparency, is believed to depend upon the fact that the osmotic pressure of the tears and aqueous is greater than that of the cornea, which tends to draw out in two directions the water that enters the cornea. If the endothelium is damaged, aqueous fluid enters the cornea and transparency is lost.

Lens

The lens is a biconvex, avascular, colorless and almost completely transparent structure, about 4mm thick and 9mm is diameter. The lens is held in place by suspensory ligaments known as the zonules. The zonules are fibers which arise from the surface of the ciliary body and insert into the equator.

The sole function of the lens is to focus light rays upon the retina. In order to focus light from a distant object, the ciliary muscle relaxes, tightening the zonular fibers which stretches the lens to its minimal dimension; refractory power is minimized and the parallel light rays are focused on the retina. In order to focus the light of a near object, the ciliary muscle contracts, molding the lens into a more spherical body with greater refractory power. This interplay which results in the focusing of objects upon the retina is known as accommodation.

Orbit

The bony orbits are the sockets containing the eyeballs and associated structures. The contents of the orbit are eyeball, the extraocular muscles,

connective tissue, fat, blood vessels, and nerves. The eyeball occupies only 20% of the orbital volume, and is situated anteriorly in the orbit just within the rim and is surrounded by its extraocular muscles, Tenon's capsule, with an extramuscular fat pad posteriorly.

Muscles

Six extraocular muscles control the movement of each eye: four recti and two oblique muscles.

Recti muscles: The four recti muscles originate at a common ring tendon surrounding the optic nerve at the posterior apex of the orbit. They are named according to their insertion into the sclera on the medial, lateral, inferior, and superior surfaces of the eye.

Oblique muscles: The two oblique muscles control primarily torsional movement. The inferior oblique muscle arises from the nasal orbit wall, curves around the eyeball, and inserts just under the lateral rectus muscle. The superior oblique muscle originates from the same ring tendon as the recti muscles and inserts just under the superior rectus muscle.

Sclera

The sclera is the fibrous outer protective coating of the eye. It is dense, white, and continuous with the cornea anteriorly and with the dural sheath of the optic nerve posteriorly. The outer surface of the sclera is covered by a thin layer of fine elastic tissue, the episclera, containing numerous blood vessels which nourish the sclera.

Histologically, the sclera consists of many dense bands of parallel and interlacing fibrous tissue bundles. The histologic structure of the sclera is remarkably similar to that of the cornea, which raises the question of why the

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cornea is transparent and the sclera opaque. The apparent physiological reason is the relative deturgescence of the cornea and the less uniform structure of the sclera as compared with the cornea. The cornea has the ability to absorb a great deal of water, whereupon it becomes opaque. The sclera is almost completely hydrated in its normal state.

Choroid

The choroid lies between the retina and the sclera. It is largely composed of blood vessels; its function is to nourish the retina.

Retina

The retina, the most essential part of the eye, is equivalent in function to the film in a camera; all the other structures of the eye exist only to nourish and protect the retina and to focus light rays upon it. It is composed of highly developed inelastic nerve tissue. When detached it appears gray, but normally it is transparent.

Cilary Body

The ciliary body is a roughly triangular structure which extends forward from the choroid to the root of the iris. Its function is to contract and relax the zonular fibers (fine tissue strands which hold the lens in place). This results in decreased or increased tension of the capsule of the lens, which allows the lens to become more convex or less convex for near or far vision, respectively.

Iris

The iris is the anterior extension of the ciliary body. It presents a relatively flat surface with a round aperture in the middle called the pupil.

The pupil varies in size and has the same form and function as the aperture of a camera lens. The muscles which served to constrict and dilate the pupil are within the iris.

Optic Nerve

The optic nerve is a trunk consisting of about 1 million axons arising from the ganglion cells of the retina. These axons comprise of the nerve fiber layer of the retina and converge to form the optic nerve. The nerve emerges from the back of the globe through a short, circular opening in the sclera. After a short intracranial course, the nerve joins the opposite optic nerve to form the optic chiasm, and continue to the lateral geniculate bodies within the brain. At the lateral geniculate bodies, synapse occurs on neurons whose axons terminate in the primary visual cortex of the occipital lobes.

CROSS SECTION OF THE EYE

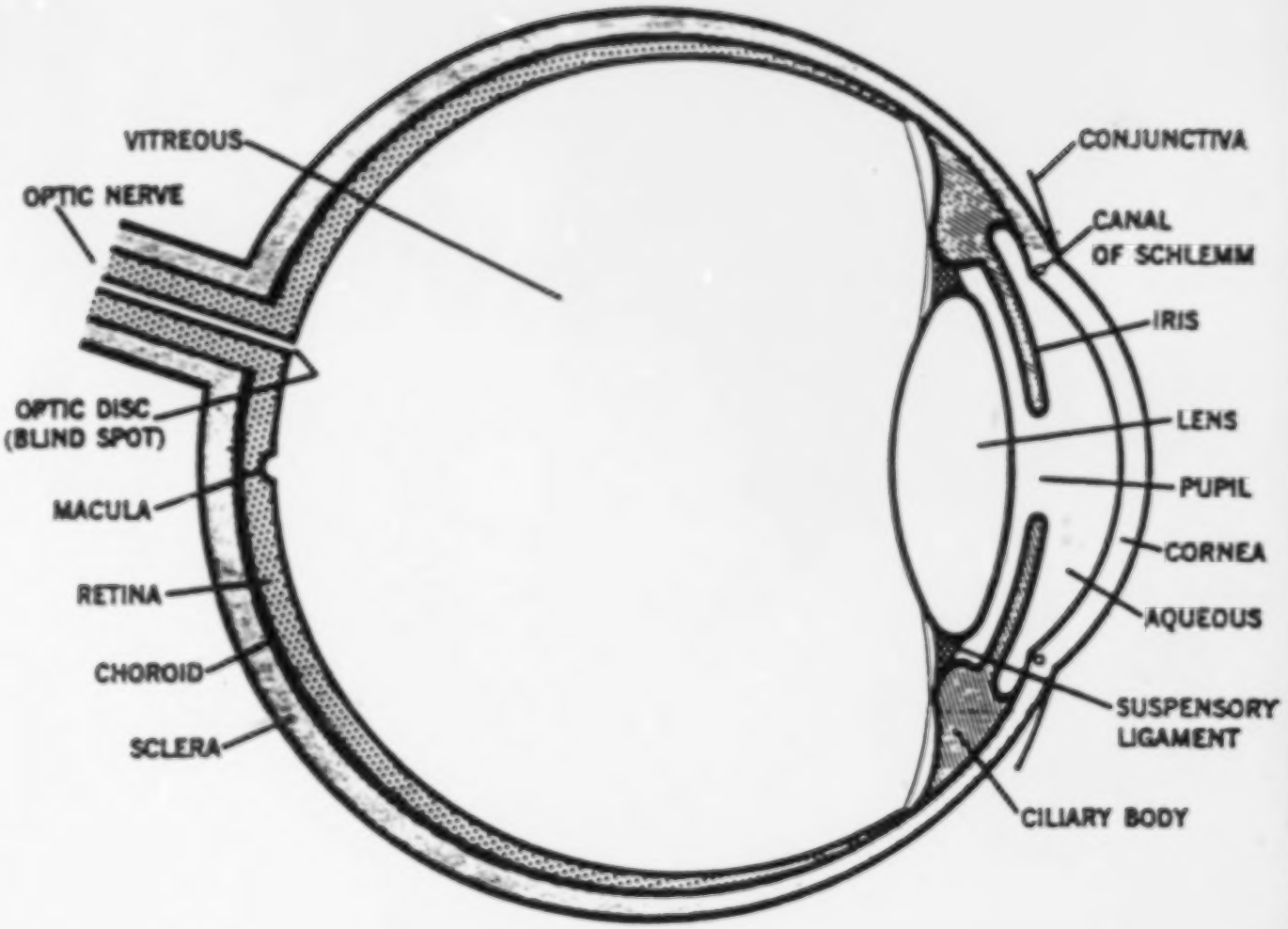
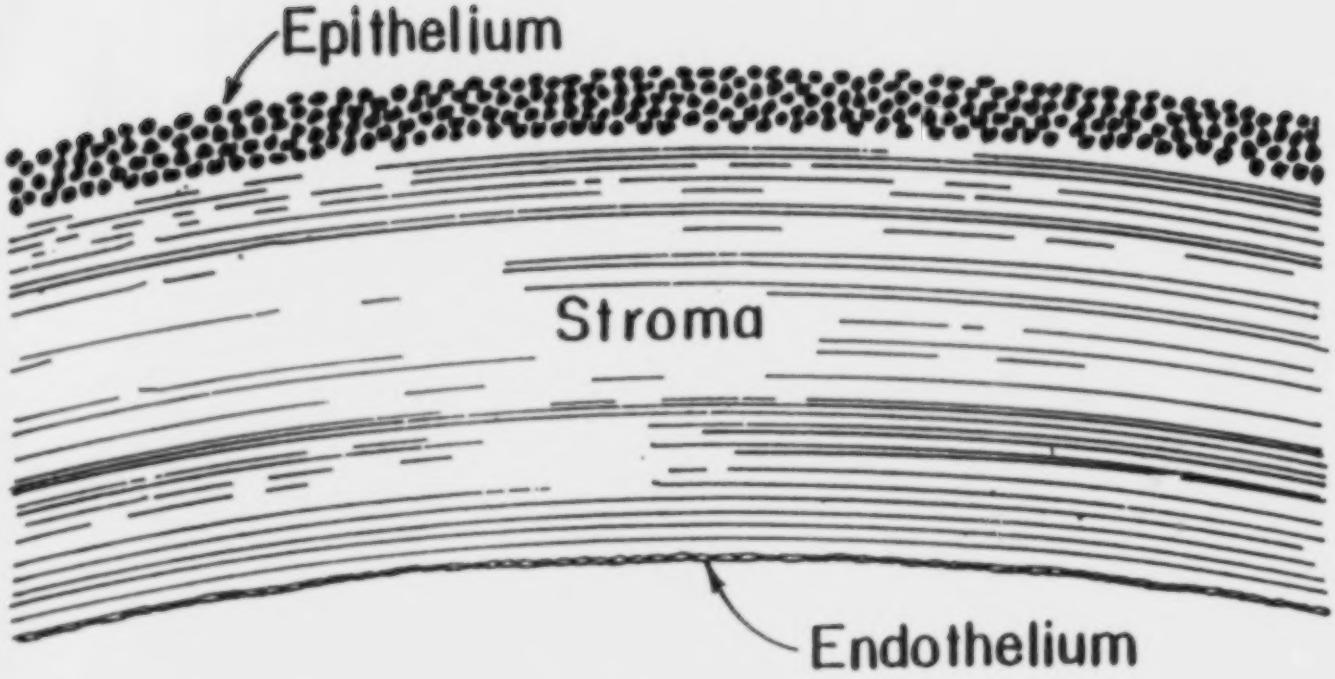
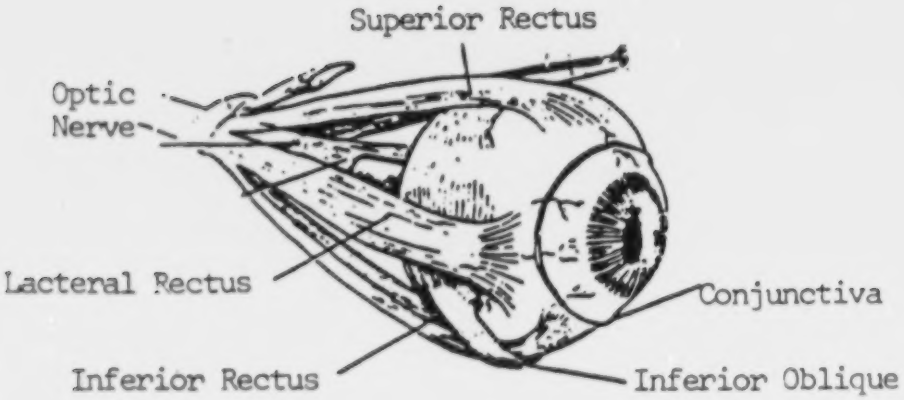
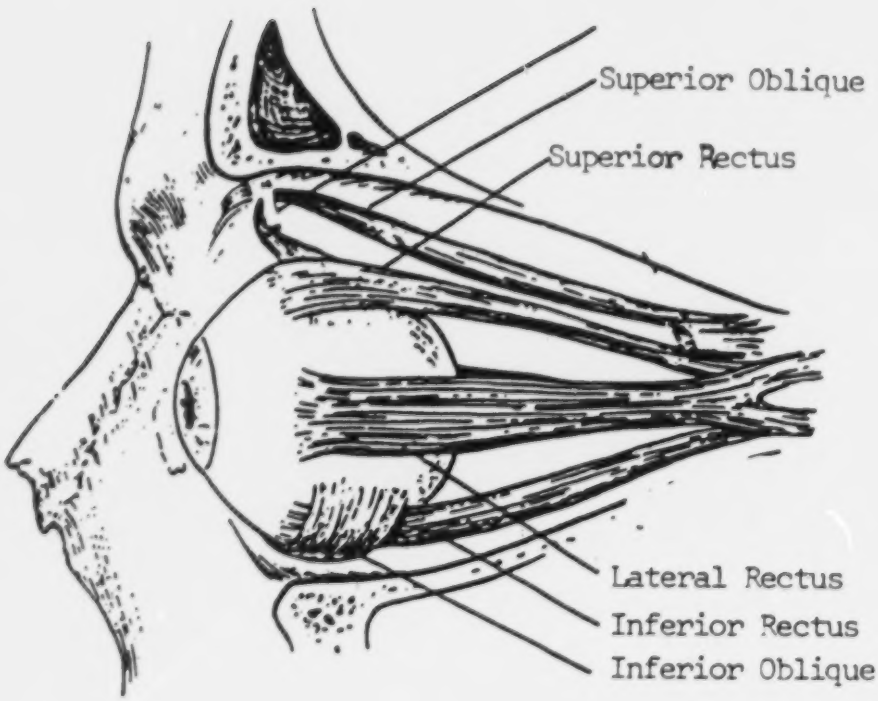


FIGURE 1

MICROSCOPIC ANATOMY OF THE CORNEA







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ENUCLEATION MATERIALS

Sterile-Wrapped Instrument Package

1. (2) Forceps with teeth
2. (1) Curved Stevens tenotomy scissors
3. (1) Graefe muscle hook
4. (1) Strong curved enucleation scissors
5. (1) Wire eye speculum
6. (1) Enucleation spoon (not necessary)
7. (1) Sterile towel

Eye Bank Kit

1. (2) Eye jars with cage, lid, and cotton balls (sterile)
2. (1) Styrofoam transport container
3. (1) Red topped blood tube
4. (1) 18 gauge 4 in. disposable needle
5. (1) 20 gauge 1 1/2 in. disposable needle
6. (1) 10 ml. syringe
7. (1) Bottle Dacriose Solution
8. (2) 4x4 sponges
9. (1) Disposable eye drape

Additional Supplies

1. Cotton balls
2. Cotton tip applicators (Q-tips)
3. Neosporin Ophthalmic drops
4. Tape
5. Alcohol wipes
6. Betadine solution
7. Sterile gloves
8. Petroleum jelly (massage cream)
9. (Optional) Mask
10. (Optional) Gown

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STERILE PROCEDURE
(done with non-sterile gloves)

I. **Don proper attire**

A. Disposable (non-sterile gloves)

B. Disposable apron or gown (optional)

C. Disposable O.R. cap (optional)

D. Mask

II. **The blood specimen may be taken at this time or after enucleation of the eyes**

A. Always use appropriate biohazard precautions

B. You may obtain a sample from the hospital

C. Use either heart stick or an appropriate vein

D. Never obtain blood from eye socket. Always use intervascular blood

III. **Arrange and open supplies**

A. Remove seal from sterile saline solution and ophthalmic antibiotic

B. Remove the outer wrapping from package of instruments without touching instruments or the inside of the paper wrapper (the contents will remain sterile). Place in close proximity to your work area.

C. Place styrofoam container with Eye Bank jars nearly

D. Place wastebasket nearly

IV. **Body preparation**

A. Remove any gross dirt with soap and water, if necessary

V. **Lid preparation**

A. Using one 10% Povidone-Iodine Solution prep pad wash the eyelids of one eye taking care to remove any secretions or deposits seen.

1. Move the pad from the upper nasal canthus laterally along the upper lid margin

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2. Using the other side of the prep pad clean the lower lid moving form the lower nasal canthus laterally along the lower lid margin

3. With the same pad clean the rest of the upper and lower lid

B. Repeat the same same procedure, using the second prep pad for the other eye

C. Using the first alcohol prep pad remove the Povidone–Iodine Solution from the lids of one eye taking care not to touch the cornea with the prep pad

D. Using the second alcohol prep pad repeat the procedure for the other eye

E. When done with each pad, discard into the nearby wastebasket

F. Never reuse a prep pad or use one prep pad for both eyes

VI. Handling drapes (towels)

A. Lift drapes (towels) directly upward to avoid touching the edge of the wrapper

B. Keep drapes (towels) at arms length away from the body

C. Keep the height of the towel between the waist and shoulder

D. Do not touch the body with gloves when placing the drape (towel)

E. Once a towel has been placed only the sterile surfaces may be touched

F. The folded edges are placed near the eyelid

VII. Draping the head

A. Position sterile eye drape

B. Same as drapes

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PREPARATION FOR EYE REMOVAL

Principles of Sterile Technique:

Eye removal is to be done in a sterile germ-free manner in order to prevent contamination of the corneal tissue. The skin is prepared ("prepped") with an antiseptic solution. Then the patient and surrounding areas are covered (draped) with sterile towels to create and maintain a sterile field. Only the eyes are left exposed

I. **The skin and the eye cannot be made sterile. Mechanical cleaning with antiseptic solutions removes and keeps bacteria to a minimum**

II. **Sterility of pre-processed items is guaranteed unless the item has been punctured, is wet or damaged. If in doubt about the sterility of anything consider it unsterile**

III. **When wearing sterile gloves touch only sterile items; when wearing unsterile gloves touch only unsterile items**

IV. **Sterile gloves should always be worn while performing the enucleation. For your protection it is also suggested that a mask and glasses be worn for protection against accidental splash-ups. Cap and gown are optional**

A. The use of the apron or gown is to protect your clothing if you feel the need

B. If you have long hair that may hang over the donor's head during enucleation an O.R. cap should be worn or your hair should be pulled back

V. **Gloving procedure**

A. Open the outer wrapper of the package, keeping the inside as a sterile field

B. Open the folded glove envelope by grasping it in such a manner as to not contaminate the inside. The outside of the envelope will be marked as to the location of the right and left glove, as well as to the location of the cuff

C. With your right hand, pick up the left glove touching the inside of the glove only and lift it straight out of the envelope. Avoid touching the edge of the paper glove wrapper

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D. While pulling on the glove step away from the table on which the opened package lies. This prevents contamination of the glove against the nonsterile table, if the hand slips

E. Pull on the left glove in one motion. Do not adjust your fingers inside the gloves at this point

F. With your gloved left hand pick up the right glove by inserting the left hand under the cuff of the right glove. Lift the glove straight out of the envelope

G. While holding the glove under the cuff put your right hand into the glove and pull it on

H. Manipulate your fingers into the proper position at this time by touching only the sterile surfaces of the gloves. Avoid touching anything unsterile

ENUCLEATION PROCEDURE

I. Apply mechanical lid retractor (careful not to damage the eyelid or cornea)

II. Using forceps and scissors, open the conjunctiva 360 degrees. (Do not cut the eyelashes or eyelid) Care should be exercised not to touch the cornea

III. Blunt dissection, using the scissors push back the Tenon's capsule and conjunctiva by entering the four oblique quadrants. This is done by sticking and spreading the scissors

IV. Isolate the four rectus muscles with the muscle hook (Anureasum needle)

V. Isolate either medial or lateral rectus muscle and clamp hemostatic forceps near insertion. This acts like a handle

VI. Pass muscle hook under each muscle (superior, medial and inferior) and cut

VII. Cut on the distal end of muscle clamped (laterial)

VIII. Elevate globe with hemostat clamped to laterial rectus muscle

IX. Slide the curve enucleation scissors open behind the globe and though feel find the optic nerve and cut

X. Slowly lift and remove eye from socket cutting if necessary any remaining attachments

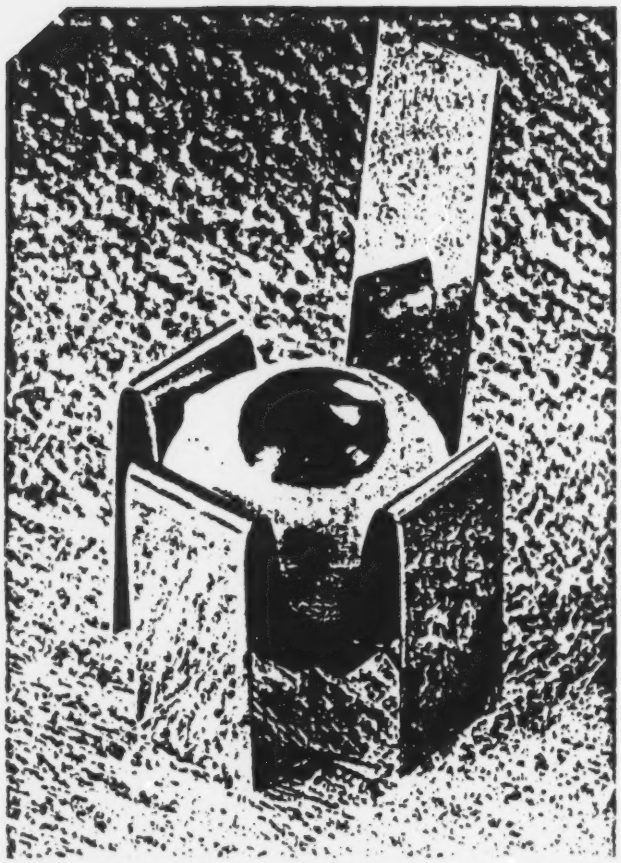
XI. Secure eye in metal cage, and place in appropriate jar. Position cornea so it will not come in contact with jar or metal cage. Irrigate with saline solution. Place cap on jar

Proceed to other eye

XII. Place moistened cotton ball into each eye socket and position eyelids. Line of closure is 2/3 the distance from the top of the eye

XII. Apply massage cream (petroleum jelly) over each eyelid

XIV. Elevate head and shoulder of the donor



PROPER PLACEMENT OF EYE IN THE EYE CAGE

EYE AND EYE CAGE IN THE STERILE CONTAINER

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Summary of Preparation Procedure

I. **Don proper attire**

II. **Obtain blood specimen**

III. **Arrange and open supplies**

- A. Normal saline
- B. Skin scrub tray
- C. Instruments
- D. Sterile towels
- E. Place stryofoam box with jars nearby
- F. Place wastebasket nearby

IV. **Body preparation**

V. **Lid preparation**

- A. Clean lids with 10% providone–iodine solution prep pads
- B. Clean lids with alcohol prep pads

VI. **Put sterile gloves on**

VII. **Drape the head using four sterile towels**

VIII. **Arrange instruments so that they are conveniently located**

IX. **Remove eyes**

- A. Insert speculum
- B. Cut and dissect conjunctiva 360 degrees (peritomy)
- C. Locate and cut four rectus muscles. Use mosquito forceps to hold last (lateral) muscle

D. Locate and cut optic nerve

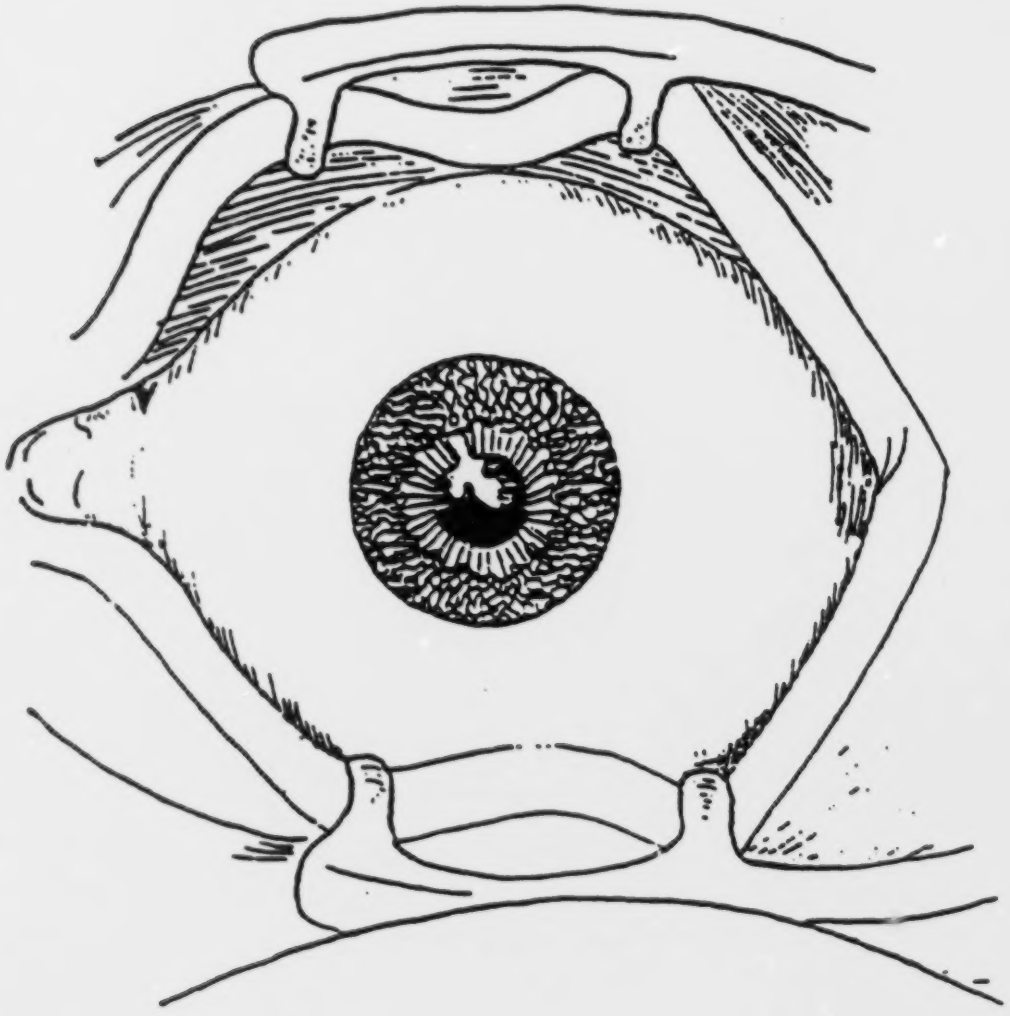
E. Cut away remaining two oblique muscles and fascia

X. Place eyes in metal holders and place eyes in eye bank jars

XI. Instill one-half of normal saline solution into each jar moistening gauze

XII. Clean, milk, and dry all instruments and tray

Step by Step Enucleation Procedure



1. Put on sterile gloves according to the previously described protocol. Place the instruments on the sterile drape next to patient's head. Lift the lids away from the operative field by fitting the lids into the speculum arms and then spreading the speculum as illustrated.

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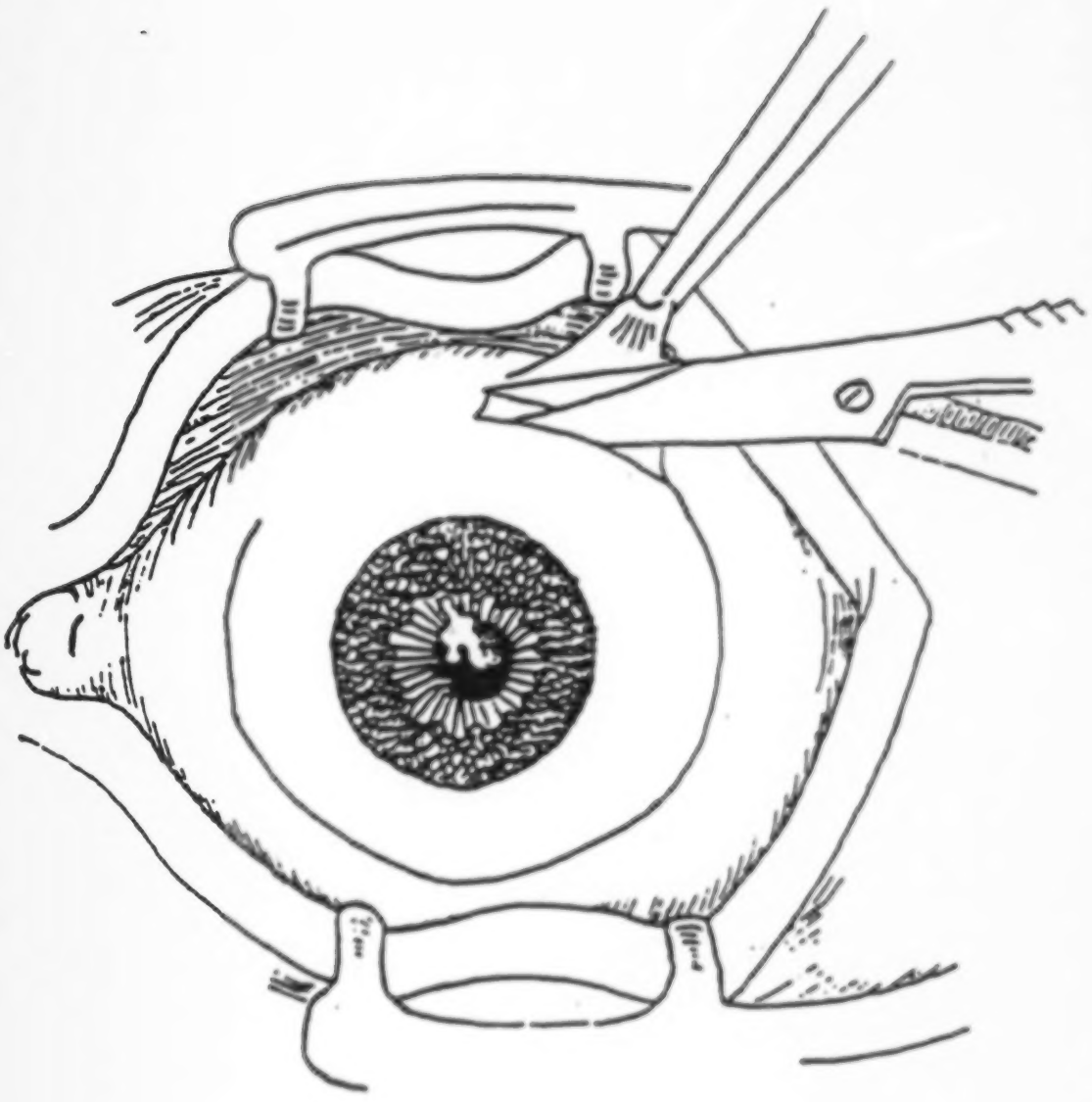

2. Using tissue forceps, grasp and pick up the conjunctiva and underlying fascia (Tenon's capsule) about 4 mm back from the limbus. Using the small scissors cut through the conjunctiva and fascia by blunt dissection and gradually extend this opening around the full circumference as illustrated.

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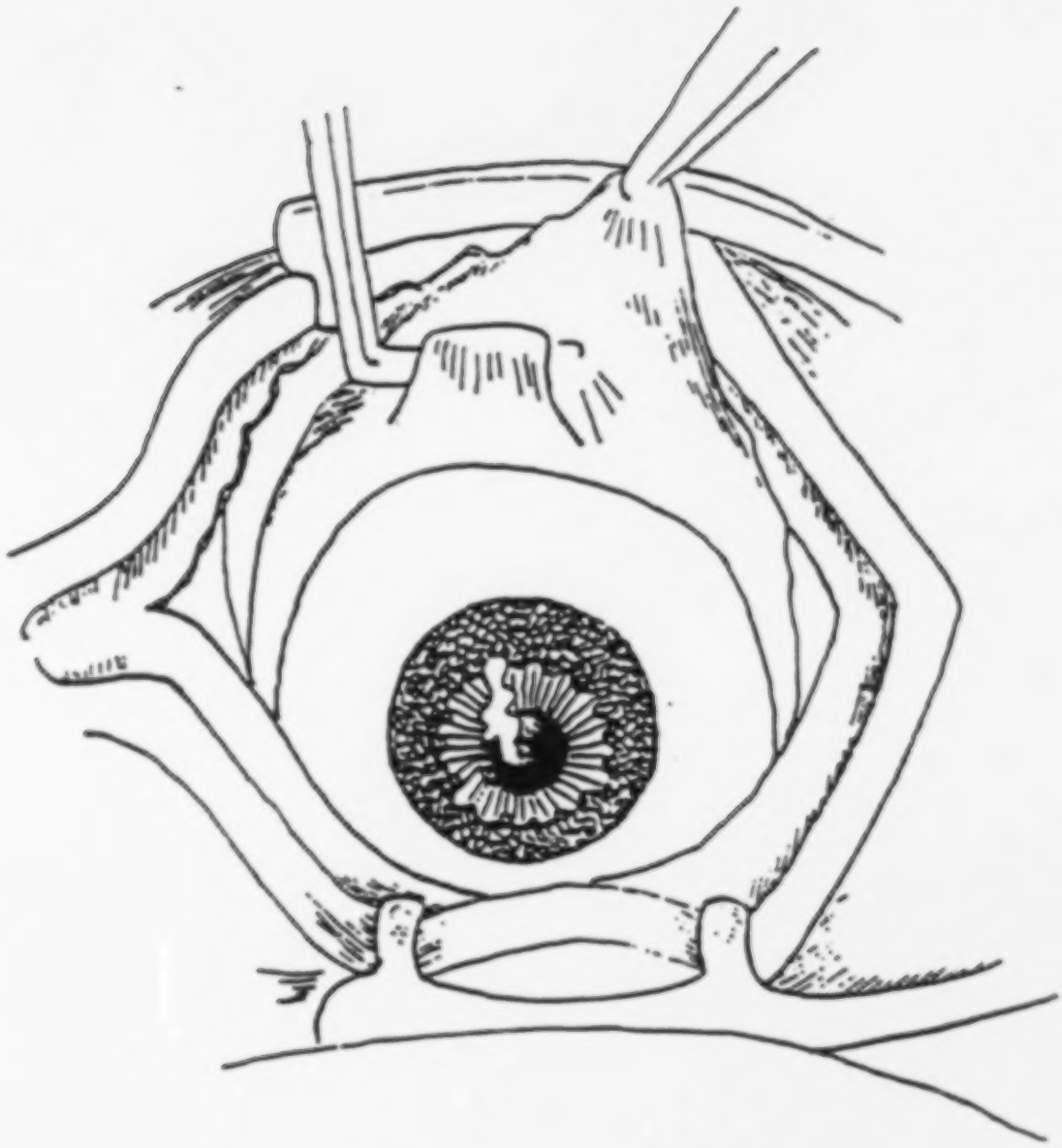
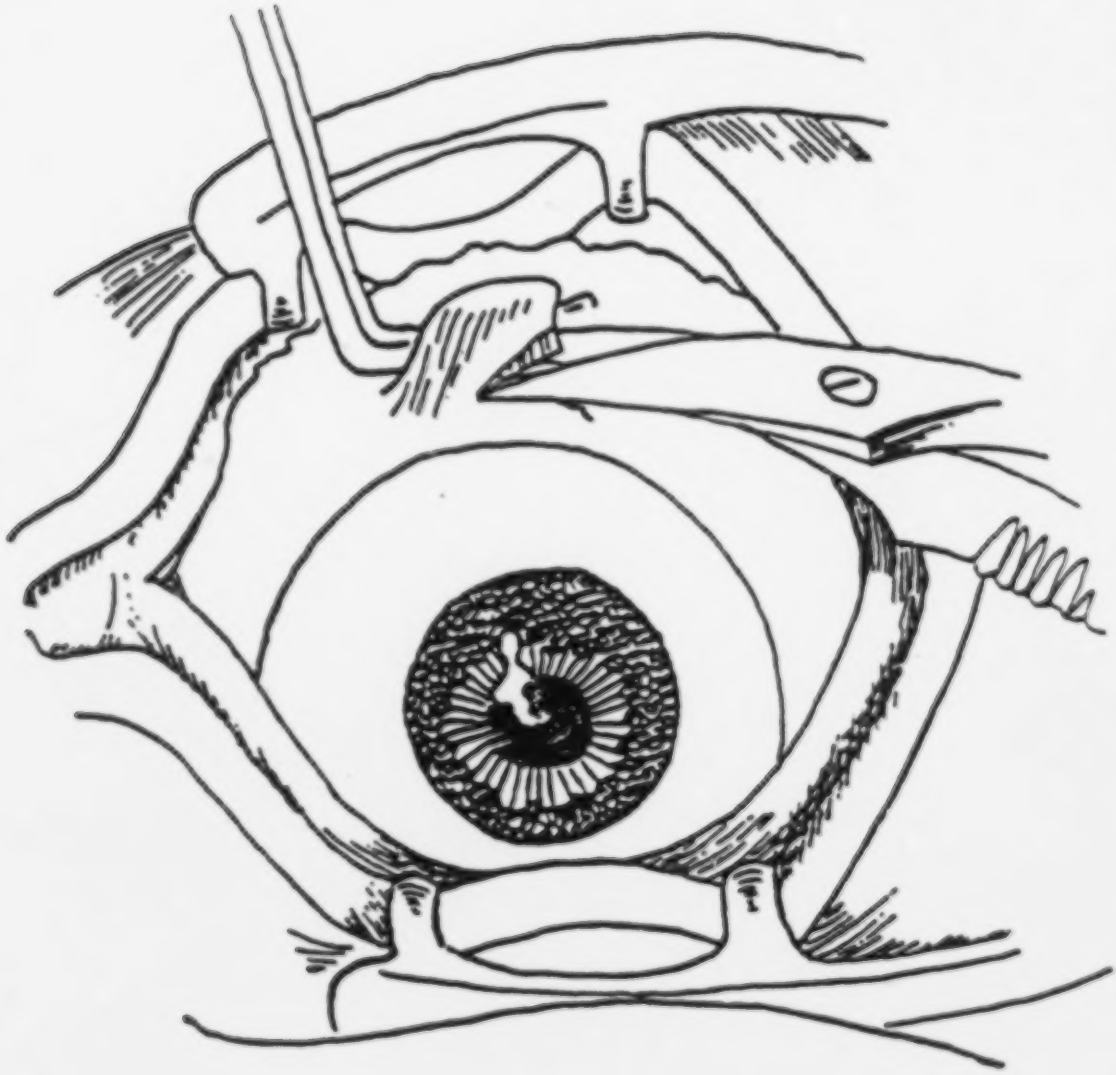
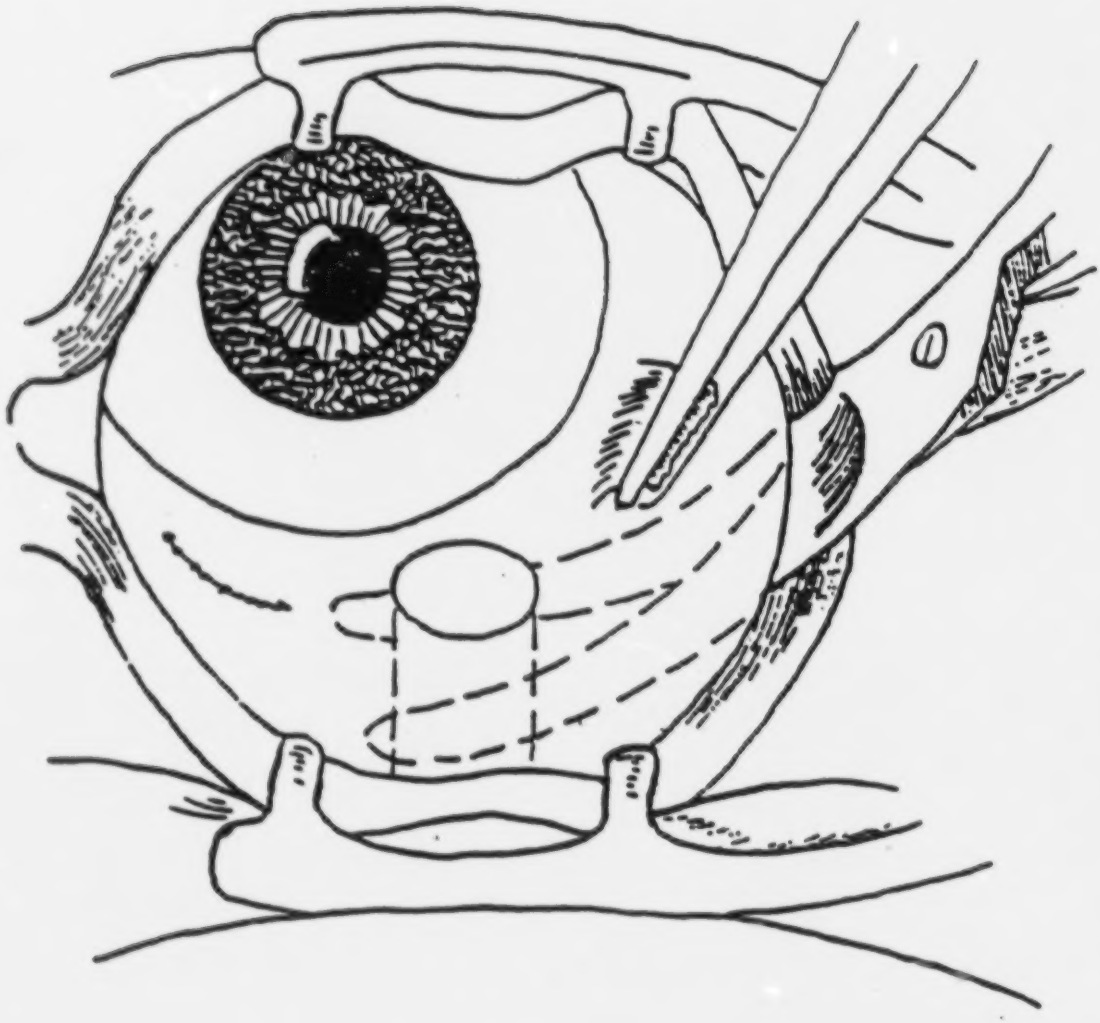


3. The rectus muscles are now to be isolated and severed from the globe. These insert onto the globe along the vertical and horizontal meridians. Their insertions are located approximately 5 to 8 mm back from the limbus. It is easy to locate the muscles if the conjunctiva and fascia have been previously dissected the full 360 degrees.

   Slip the muscle hook back along the sclera, under the conjunctiva and fascia. Carry the hook behind the expected location of the muscle insertion and then bring it forward to hook the muscle. (Example shows locating the superior rectus muscle). It is sometimes necessary to trim away loosened conjunctiva and fascia to isolate the muscle.



4. Having exposed the muscle, cut it from the globe near the insertion as illustrated. Repeat this for the superior, inferior, and medial rectus muscles. After locating the lateral rectus muscle, clamp the mosquito forcept (heomstat) to the muscle **before** severing the muscle from the globe. It is not necessary to cut the oblique muscles.



5. With the mosquito forcep, turn the eye toward the nose. Slip the closed curved enucleation scissors along the lateral side of the globe and into the socket. With the closed scissors "feel" for the optic nerve. Once located open the scissors and cut the optic nerve well behind the eyeball. (This is accomplished by "feel" and not by direct visualization). The eye will become free and can be slitted away from the socket. Cut the additional tissue, including both oblique muscles, as the eye is being removed from the socket.

6. Having freed the eye, fit it into the metal eye holder found inside the sterile jar. Slip the optic nerve through the round hole at the bottom, if possible. Use care to avoid abrading the cornea which will be facing upward. The holder containing the eye is inserted into the glass jar. Flow one half of the ampule (7 and one-half mls.) of normal saline onto each comea, allowing the solution to flow over the eye and collect in the 4x4's in the bottom of the jar. Close the jar by screwing the top firmly over the metal eye holder thus forming a moisture chamber.

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RECORDS TO BE COMPLETED

I. Permission to Remove Tissue

A. Before performing any enucleation, you should have the consent form in your possession

1. The form should be signed by the legal next–of–kin, as stated in the order of priority by law, and witnessed

2. It is the duty of the physician or other hospital personnel to obtain these signatures. The person performing the enucleation usually never asks for these signatures

3. Leave the original of this form in the hospital chart. Send a copy of the form with the eyes

II. Donor History Form

A. Fill out all information requested on the history form. This information is vital for the efficient utilization and distribution of the tissue

1. Information can be obtained by asking nursing or other hospital personnel

2. Never look for the information in the donor's chart yourself without first asking for permission from one of the nursing staff

III. Labeling

A. Mark each jar with the donor's initials, birthdate, retrieval date, and facility

B. Please label blood sample tube with donor's name

IV. Tissue Record

A. Complete a Tissue Donation Record

B. Have record signed by hospital personnel and leave top copy in the donor chart

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INSTRUCTIONS FOR SHIPPING

Whole Eyes

I. **Check each eye jar for:**

   A. Moisture in bottom of jar

   B. Label with donor's initials, donor's birthdate, date of enucleation, retrieval facility and OD or OS

   C. Caps are securely closed

   D. Eye is in an upright position in the cage, securely pinned and the cage is not touching the cornea (see diagram)

II. **Place jars upright in styrofoam shipper**

III. **Fill a plastic bag with ice and place by the jars. Make sure ice does not touch jars**

IV. **If styrofoam container does not have holders, place crushed paper around jars and between ice bag**

V. **Fill upper part of container, to prevent movement**

VI. **Place completed donor history, copy of consent, copy of tissue donation record in an envelope and put in box**

VII. **Place blood tubes, in box wrapped in plastic or paper, and labeled as in number l. b. above**

VIII. **Tape lid closed**

IX. **Complete an address label and tape to lid**

X. **Place container in 4°C refrigerator if possible, until shipment**

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NEXT OF KIN

According to the Uniform Anatomical Gift Act, any person has, prior to death, the legal right to donate all or part of his/her body, after death, for medical research, education, or therapy. However, in practice, consent is always asked from the next of kin. This is to avoid any conflict that might arise should the next of kin disagree with the decision to remove the tissue from the deceased.

The consent must be signed and witnessed. If the individual is not physically present, consent may be obtained by phone if recorded, or witnessed by two people, with oral consent confirmed in writing when the family is able to provide it.

Consent may be obtained from the following individual(s) in order of priority:

1. The Spouse
2. An Adult Child
3. Either Parent
4. Adult Brothers or Sisters
5. Guardian at Time of Death
6. Person Authorized to Dispose of Body

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PROCEDURE FOR PREPARATION PRIOR TO ARRIVAL OF ENUCLEATOR

I. Close eyelids to prevent dehydration

II. Elevated head and neck region

III. Place ice bags over eyes

MAJOR PROBLEMS ENCOUNTERED

Distention

Distention is the most troublesome and frustrating problem encountered in post enucleation treatment. Swelling of the eye lids causes an unnatural appearance; if the distention is reduced appreciably, wrinkling of badly stretched skin of the upper lid may cause an equally unnatural and undesirable appearance.

Distention of the eye lids is a rather common problem in routine embalming. The eye lids are highly vascular, and the tissues poorly supported. Many types of disease and injury, as well as a postmortem increase in capillary permeability, may contribute to eye lid distention during arterial embalming, especially if the injection pressure is above reasonable limits.

Pinching or stretching the lids during enucleation will increase the possibility of distention. Capillaries are ruptured, tender tissues are torn, and during the arterial injection fluid solution will flow rapidly into this area of feeble resistance to cause a marked "embalming edema" and distention of the eye lids.

To help prevent distention:

1. Use the retractor carefully and gently during both the enucleation and the restoration

2. Avoid unnecessary stretching of the rectus muscles, especially the superior rectus, and the levator muscle. Any excessive force applied here will encourage distention

3. Eliminate ligation of the optic stalk, unless the ligation can be accomplished without any pressure whatsoever of the hemostat against the upper eye lid

Discoloration

Discoloration of the lids and adjacent tissue usually accompanies distention. Rupture of the capillaries by trauma permits hemolyzed blood to escape into the intercellular spaces, from which point it cannot be removed. As time passes the discoloration becomes darker and darker.

Leakage

The seepage of blood from severed vessels of the eye and orbit is a consistent but not particularly troublesome complication of enucleation. In the vast majority of instances leakage is quite easily controlled and should cause no post-embalming problems. Especially is this true if care is taken during the enucleation to keep Tenon's capsule intact.

MSFS:KD:14:29: 5.91

EMBALMING PROCEDURE

As in all cases where the eye lids may be somewhat more susceptible than normal to swelling, the body should be injected arterially with a minimum pressure and a reasonably quick firming fluid. The use of a remote injection point such as the femoral artery may prove helpful.

If the lids exhibit a tendency to swell during the early stages of arterial injection, external pressure in the form of heavy pads of wet cotton applied to the eye lids during the injection may prove helpful.

In cases where swelling may happen, the restricted cervical injection is recommended. This injection allows best control over amount of fluid entering the head.

The procedure follows:

1. Raise the right and left common carotids and right jugular vein
2. Insert arterial tubes both up toward head and down toward the trunk in both arteries
3. Insert drainage device into right jugular vein
4. This will allow the use of different rates of flow and pressure for the trunk and head

POST-EMBALMING
RESTORATIVE PROCEDURE

1. To prevent the seepage of blood from the severed optic vessels, compress the vessels by inserting a trocar button securely into the optic foramen (the small opening at the center of the floor of the orbit through which the nerves and blood vessels emerge to reach the eye). If a trocar button is not available, drive a short length of sharpened dowel rod or the stump of a pencil into the foramen.

2. Paint the interior of the orbital cavity with rubber cement or a commercial sealer. Do not place a powdered incision sealer into the cavity as it will cause extensive dehydration of the lids and surrounding tissue.

3. Dip small bits of cotton in the liquid sealer or rubber cement and tamp them firmly into the orbital cavity. Fill the orbit as you would when preparing a leakproof restoration base in any cavity or mutilation of a facial area.

4. When the base has been brought up to the proper level, top it with an eye cap, the convex surface of which has been well coated with vaseline or massage cream. Then close the eye lids in the normal manner.

5. In those instances where some degree of distention has developed despite all precautions, reduction of the swelling may be accomplished by incising the lining of the lid (taking care not to cut through the skin of the lid) and gently massaging the accumulated liquid out through the incision. Any wrinkles resulting form the reduction may be massaged or tucked back up under the supraorbital ridge. Covering the upper lid with a thin coating of flesh colored wax may also help to conceal unsightly wrinkles.

If residual discoloration creates a problem, the color should be modified with some effective bleaching agent and then masked with cosmetics.

MSFS:KD:14 (31) 5.91

INSTRUMENT CARE

I. **Wash in instrument cleaner**

   A. It is a blood solvent

   B. It leaves no soap film

II. **Rinse thoroughly**

III. **Lubricate with instrument milk**

   A. Dip instruments in milk after washing and rinsing

   B. Work all movable parts of the instrument

   C. Let air dry or, it necessary, dry each instrument thoroughly before wrapping to prevent breakdown and rusting of instruments

IV. **Silicone spray for instruments**

   A. Set up a weekly or monthly routine depending upon the use of the instruments

   B. Spray each instrument and work all movable parts

   C. Let air dry

V. **Wrap**

   A. Protect instruments from rough handling by wrapping them in a soft towel

   B. Open clamps, forceps, scissors

   C. Make arrangements with hospital to sterilize instruments

VI. **Sterilization of instruments in Cidex**

   A. Pour mixed, dated Cidex into a clean, dry pan

   B. Immerse the instruments and let soak 10 minutes

   C. Remove all instruments from Cidex, being careful not to touch the sides of the pan

MSFS:KD:14 (32) 5/91

D. Rinse instruments thoroughly using sterile normal saline or sterile (not distilled) water

E. Blot dry with 4x4's from Skin Scrub Tray

F. Discard any mixed Cidex

ASK THE QUESTION AND EXTEND THE OPPORTUNITY

The opportunity to approach a patient and/or family with a request for tissue or organ donation is a responsibility and challenge for nurses and other health care professionals, but one which is being accepted with enthusiasm. This act of involvement may seem like one of role reversal for health care professionals, becoming actively involved in post–death activities rather than only in immediate care delivery. By making such a request, however, consideration is being given for emotional and psychological patient and family support and for the quality and quantity of life for potential recipients.

To make an effective approach it is necessary to be thoroughly familiar with the hospital policy on donation so that no delay or confusion occurs once the family is approached. It is also important to be comfortable about one's own feelings on death and dying and on grief, as well as on the aspects of donation. Many times these feelings must be dealt with very rapidly on the part of the family, so it is essential that the person making the approach is both sensitive to the anticipated and unanticipated emotions and is comfortable with their own feelings in these situations. There is no right or wrong answer. There is only an opportunity to make a decision to donate the help another individual.

The approach for donation should be made in a private, quiet setting. Encourage the presence of significant family members, clergy or others whom the next of kin feel may need to be involved in this decision. Be respectful, honest, and straightforward. This is a time for brief explanation, tact, genuine sensitivity and understanding; play no games, use no deceit or haste. Encourage and answer all questions. Promote discussion of thoughts and feelings. Listen and be aware of anxiety and fears, verbal and nonverbal

MSFS:KD:14:34: 5.91

communications. Allow the family time to talk alone, but be sure they are aware when you will return and where you may be reached should they want to talk with you again. Accept their decision nonjudgmentally. You can only present them with the opportunity to donate and with sufficient information to make an informed decision. Once again, there is no right or wrong answer – only the answer which is comfortable for that individual at that time. With the public's increased awareness of the need for organ and tissue donations your request will not surprise or offend them.

Studies indicate that 70–80% of individuals approached will consent to donation. Dealing with death is never easy but for many the opportunity to donate lessens the futility and pain. For the medical staff, presenting the opportunity becomes just a further extension of total patient care and an expression of humanitarian concern. Assistance through tissue and organ procurement coordinators is always available as a resource to the hospital staff should it be desired. Significant differences can and are being made in reducing the waiting lists for tissues and organs, and in improving the quality of or saving lives because of involvement such as yours.

MSFS:KD:14/35/ 5.91

ASK THE QUESTION

The following are possible opening sentences you may wish to use in your approach when asking for tissue/organ donations. Your approach will no doubt vary to fit the given situation. Once an opening statement is made, the family will guide the discussion. You need to listen carefully, answer their questions, and support them in their decision making process.

"At our hospital we like to give you the opportunity to donate tissue which can help other patients. Even if you do not know whether it was _____ _wish to donate, or if you had not thought of this before, please consider it now. I'll be happy to answer any questions you may have."

"Do you know if _____'signed the back of his driver's license?" (All people who drive know what appears on the back of a license, this is usually enough to start a discussion).

"I am so sorry about _____. I know that this is a very difficult time for you, however, I have something important to ask you, that could make a tremendous difference in another persons life. If you would like to make a tissue/organ donation, I will need to start making arrangements. Please take time to think it over, and let me know if you have any questions. It is perfectly OK to refuse, but on the other hand, there will be people who would be eternally grateful for the gift. One person can give the gift of sight to two people."

"It is a new law in Illinois that I offer you an opportunity to donate tissue for transplant. Do you have questions or want information about what's possible?"

"I know this is a tragic loss for you. It is hard to find anything that is consoling at a time like this. But some people have found that donating tissues

for transplant action helps them in dealing with their grief, by making something positive come from a negative situation."

"I know this is an extremely difficult time for you. I would not impose upon you now, were it not for the time constraints. If you would like to make a donation, the arrangements would need to be made now. May I explain to you what's needed and how you can help?"

"Many people intend to address the issue of organ/tissue donation, but never quite get around to it. If you haven't already considered this, may we talk about it now?"

"I know this a difficult time for you, but I'd like to offer you the opportunity to consider a tissue donation."

You may wish to reassure the family that tissue donation does not require a delay in their funeral arrangements as it can be accomplished within two hours after release of the body. Of course, if there is to be an autopsy this time factor must be considered. It may be helpful for them to know that these procedures can be accomplished within the hospital and that the surgical procedures are such as to not interfere with viewing. There is no charge to a recipient for the tissue itself, nor will any additional hospital charges be incurred by the donor family.

MSFS:KD:14(37) 5/91